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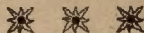
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THE NORMAL.

VOL. II.

PROVO, UTAH, OCTOBER 1, 1892.

No. 1.

MANAGING EDITOR, - - H. M. WARNER.
BUSINESS MANAGER, - - WESTON VERNON.
SECRETARY, - - - GUY C. WILSON.

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EDITORIALS.

DEAR reader, vacation has come and gone, and the many pleasant associations that were severed a few months ago, are again renewed. The memory of delightful scenes found in summer rambles through wood and field, the attendant pleasures of mountain excursions, or moonlight walks in the favorite haunts of home, may still linger in the intervals of study, but the real is no more. It is superseded by earnest work in the schoolroom.

The faces of many friends are missing and other kindly ones are filling the vacancy. And we feel sure that ere this school year shall have closed, the same ties of friendship will unite us as heretofore in the bonds of brotherhood.

Thus at the beginning of another school year, full of bright hopes, THE NORMAL greets you! To old friends and the new, we extend the band of fellowship, and with an abiding faith in the future of our education, resolving to work with a zeal for her ultimate glory, we

earnestly solicit your co-operation in the prospective fruitful year before us.

NOTWITHSTANDING the great increase in the number of normal students each year, the demand for good, live teachers does not abate. One reason for this perhaps lies in the fact, that the standard of teaching in this territory is on a rising incline. The time is now past when any person who is able to "read, write and cipher" can obtain a position in our public or private schools.

The advantages of a good normal training are becoming more and more apparent, especially to thoughtful people. The old objection that theory amounts to little, and that practice alone suffices, is an argument no longer in the light of our Normal Training School.

Here theory and practice are combined. Beneath the scrutinizing eyes of critics, the teacher conducts her class and the points made or lost are discussed in the critic's meeting. The benefits thus derived can scarcely be over-estimated.

So our beloved institution maintains her position as being one of the most potent factors in the intellectual advancement of Utah and the west.

WITH this number, Vol. II of THE NORMAL commences.

New hands are at the helm, but we trust the spirit of their predecessors will be perpetuated in them, that success may crown their efforts.

The size of the paper has been somewhat enlarged, as the circumstances seemed to warrant, pointing to the fact that we are steadily moving onward.

Articles by the foremost educators in Utah will appear in our columns, upon scientific, literary and pedagogical subjects.

An interesting correspondence will also appear, from former students who are now pursu-

ing extended courses in institutions of the east.

Another important feature, especially to students, will be a series of pedagogical notes, from the lectures of Profs. Cluff and Brimhall.

We intend, in fact, to make it a paper worthy the patronage of every person in Utah interested in the cause of education.

WE are pleased to announce to our readers that our co-worker *The Business Journal* is out again, and deserves your patronage with all others who are interested in business education. The Commercial College which it represents, is a feature of our academy of which we feel proud. Their staff of officers are well qualified to make it this year as last one of the foremost in its line. We wish them success and *God speed* on their year's journey of journalism.

WE boldly assert, without fear of successful contradiction, that the holding of the late Summer School has marked an era of no small worth in the history of Utah's educational growth.

We are pleased to note the frequent visits of great educators to our mountain vales, and the interest taken in them by our people. It gives breadth of view, and a more liberal culture. There is no doubt that the work of Col. Parker during his brief sojourn here, has done an incalculable amount of good.

If his instructions were general and rather brief, they were replete and running over with the true spirit of his calling.

The virtue of his work, perhaps, was not confined to plain theory and scholastic lore; it may be that the invention of fine hypotheses, and the development of intricate problems played but a minor part in his lectures; but what shall we say of the deep, powerful, energetic spirit of the *New Education* that pervaded his entire labors? Like a golden thread amidst the warp and woof of theoretical instruction, it shone forth with a brilliant lustre.

Some have called him an enthusiast. Pestalozzi was called such, so was Froebel, and so have all great men of his character been

misunderstood and often ridiculed because they dared to prepare the way for the regeneration of mankind. It is said that Pestalozzi was one hundred years ahead of his time. Some of his greatest theories are not yet realized.

The same may be said of Col. Parker. Some of his theories are too beautiful and glorious for this stereotyped age.

We are not yet entirely free from the tares of Scholasticism sown during the Middle Ages. But they will be rooted out in time, and in that great Millennial day when *true education* shall have won its victory, the names of such men as Col. Parker and Dr. Karl G. Maeser will shine forth high in the list of the great and noble ones.

VARIOUS TOPICS.

FOR THE MUSEUM.

An effort will be made during this year to have the museum in the department of natural science represent the mineralogy, fauna and flora of this Territory. This can be done only by the co-operation of the students with the instructor in charge.

For the geological cabinet specimens of rock formation, fossils, petrifications, ores, minerals and samples of soil are desired. Note especially in connection with the specimens the locality from which each comes, and for a fossil the nature of the rock in which it was found.

In zoology care must be taken to bring specimens of mammals and birds as soon as they are killed. Fur and feathers must be free from blood, and birds to be easily mounted must be killed with very fine shot. Reptiles and fishes must not be mutilated, but may be placed in glass jars containing a weak alcoholic solution ($\frac{1}{3}$ 80 per cent. alcohol, $\frac{2}{3}$ water). In no case attempt to skin a mammal, bird or reptile without previous instruction.

For collecting insects use a round net of mosquito netting. Place butterflies and moths as soon as captured into a wide-mouthed bottle containing potassic cyanide. Be especially careful not to injure or brush the scales from the wings of the lepidoptera.

In botanical collecting remember that a perfect plant has root, stem, leaves, flowers and fruit, and all these parts are essential to a complete herbarium specimen. At this season of the year leaves and fruit (i. e., nuts, seeds, acorns, etc.) can be gathered, and in the spring

or summer the plants can be completed. Specimens of native woods (sectionized) will be acceptable, as will all grasses, ferns and mosses, though of grasses both flowers and seed are needed; of ferns the sporangia, or little spores on the back of the frond; and of mosses the capsules. A fern without sporangia or a moss without capsules is absolutely valueless in any collection.

The curator would also be pleased to receive donations of archaeological and ethnological specimens from any part of the west. Old pottery, hieroglyphics, picture writings, implements, weapons and relics come under this department, and the curator will be pleased to defray all expenses of transportation for any specimens of whatever nature that will add to the value and completeness of the B. Y. A. Museum.

Walter M. Wolfe.

EDITOR NORMAL:

As last year students of the academy, and being quite a distance from you, we thought a few lines descriptive of the Michigan Agricultural College might be of interest to some of your readers.

Last year a number of young people were chosen to go East to pursue extended courses there.

We were among the number, and since the 17th of August some 2,000 miles have separated us from home, but we hope not from remembrance.

The Michigan Agricultural College is situated about three and a half miles east of Lansing, on a beautiful grassy plot of rolling hills, dotted with small forests of maple, walnut, wild-cherry, oak and others. Connected with the College they have about twelve recitation and experimental buildings, besides the departments of horticulture, agriculture, and botany. A new botanical laboratory is in course of erection.

One scarcely finds a bare spot of ground, except where paths wind through the carpet of green. The little Redcedar flows through the center of the farm, which lends beauty and grandeur to the surrounding. The main part of the farm is on the west side of the river.

The directors have exerted every energy for the procuring of instruments for the institution. They have a small grist-mill, threshing-machines, and all kinds of machinery. Thus farming is done on a scientific as well as a systematic plan. The machine and wood-shops afford excellent advantages for training

in the line of mechanics. There is also an armory and gymnasium giving plenty of exercise, besides the manual training received.

Being an agricultural college, few ladies attend, which is, of course, quite a change for Utah students.

About the only thing they find fault with is the house-keeping. Not being acquainted with the methods here, they expected to board with a private family. But they were given a cage without the bird. This is too near bachelor-dom, they say, but they are strictly "in it" now, with no way of retreating.

After a sojourn here for some time, perhaps these young worthies will be able to give lessons in house-keeping to young ladies.

Yours in the cause of education,

J. H. HORNE,

ERNEST PARTRIDGE.

Michigan Agricultural College, Sept. 11th, 1892.

LIFE'S PROSPECTS.

O let us hope! the world is wide,
Our share of joys we'll surely win;
The greatest men at first have tried,
The only way is to begin.

O let us hope! what men have done
Both you and I can surely do;
We'll profit by the steps they've won,
And labor to a higher view.

O let us hope! the brightest prize
Is not too good for any man;
All worth, all merit yet will rise,
If following a noble plan.

Still let us hope! there's room enough
For every willing hand to work,
But oh! there's never room enough
For any who will idly shirk.

Still let us hope! all work will win
A prize according to its need;
Join heart and soul in work, and sin
Will flee away, and we'll succeed.

Then let us hope,—we'll win our way,
We'll reach the top, and stand the test;
Then at Life's close good men will say:
"Here's one who did his very best."

Do not think of your faults; still less of others' faults; in every person who comes near you, look for what is good and strong; honor that; rejoice in it; and as you can, try to imitate it; and your faults will drop off like dead leaves, when their time comes.
—John Ruskin.

"Many men do not allow their principles to take root, but pull them up every now and then, as children do flowers they have planted, to see if they are growing."

THEORY AND PRACTICE OF EDUCATION.

NOTES ON TEACHING.

THEORY B.

(NOTE.—We propose under this head to give the substance of Professors Cluff and Brimhall's Lectures on the Theory of Teaching.—ED.)

DEFINITION OF EDUCATION.

The word education comes from the Latin *educare*, which means to draw out. As a process, therefore, to educate is not to fill the mind with something, but rather to develop and cultivate it by drawing out its powers. Prof. Hinsdale says, "Education is the process of transformation wrought in man in his young and plastic years by governors and tutors, and particularly by professional educators and teachers in schools." According to Johannot, "the object of education is to promote the normal growth of a human being, developing all his powers systematically and symmetrically, so as to give the greatest possible capability in thought and action."

THE SCIENCE OF EDUCATION.

There is perhaps no doubt now in the minds of those who have studied educational methods that there is a science of education.

It is a practicable and an applied science, and like that of medicine draws its materials from a number of other sciences, which should be studied in connection with it.

THE HISTORY OF EDUCATION.

To Greece and Rome more than to any other ancient nations are we indebted for our educational principles. They are the earliest representatives of European civilization, and as such give us our educational foundations. The records they left of their intellectual achievements began the great work of the Renaissance, and as much as anything else kept it moving.

GREECE.

Two cities in Greece, Sparta and Athens, became prominent for their educational methods. Sparta aimed to produce brave soldiers, expert athletes, men of great courage. Their education was, therefore, mostly physical. Mind was sacrificed to body. Children were considered as the property of the state. At the age of seven the boys were placed in public schools, where they were trained vigorously in jumping, running, wrestling, spear and quoit throwing, etc. Reading, writing and music were taught. The girls also engaged in athletic sports and emphasized physical training. The result of this "martial education," as that of Sparta is sometimes called, was to produce a

powerful band of warriors trained to endure fatigue and brave to the extreme.

In Athens, however, Grecian education attained its highest development, both in its theoretical and practical aspect.

While not neglecting the physical training, the intellectual was emphasized. A strong mind in a strong body was what the Athenians desired to reach. Education was not by law compulsory, but it was by the sentiment of the people.

Schools were established, mostly private, and then, too, the works of arts and science so thickly distributed throughout the city were educational. At the age of seven years the child started to school, in charge of the "Pedagogue," or leader of children. Here he learned reading and writing, then arithmetic, grammar and literature. At the age of twelve or fourteen years the sons of the poor usually began the study of a trade, while those of the rich continued their scholastic studies, pursuing the subjects of poetry, rhetoric, mathematics and philosophy. Parallel with this mental culture ran gymnastics, running, jumping, wrestling, swimming, etc. Music formed an important part of the education, because of its harmonizing and ennobling influence.

At eighteen the boys enter the military service, where they passed through a severe discipline for two years.

In speaking of the Athenian education, Painter says that it was by no means ideal, though it was far above any system previous, and that it was particularistic, aiming not at a manhood of typical and universal perfection, but rather aiming to produce the beautiful Athenian.

The effect of this education, sometimes called an "aesthetic education," was to produce men of the highest intellectual culture.

ROME.

The history of Roman education may be divided conveniently into two periods. The first closing and the second beginning at the time of the conquest of Greece. During the first period the ideal followed more or less that of Sparta, while the ideal and methods of Athens were followed during the second period.

There was an essential difference, however, between the Roman and the Spartan education. In Rome the mothers were the instructors, and the condition of woman was greatly elevated. The effect produced by thus making mothers instructors was beneficial to a marked degree. A type of manhood and womanhood was pro-

duced which excelled for virtue and patriotism.

After the conquest of Greece, education and methods changed. Greece intellectually conquered Rome, and instituted in Italy the customs and manners of Athens degenerated. We now see springing up schools and educators of ability, but the vigor of intellect was lacking.

EDUCATORS.

During the first period, Rome, like Sparta, produced no great educators; during the second, however, such men as Quintilian, Seneca and Plutarch are seen.

Quintilian lived about the middle of the first century, A. D. He was an orator and rhetorician, and at the age of twenty-six years was appointed by Domitian, the emperor, to the chair of eloquence in the university. But Quintilian is best known to us by his work called the "Institutes of Oratory," a treatise on rhetoric and a complete scheme for the education of an orator. He commences early with the child, and demands that nurses shall be virtuous and prudent and that their language shall be irproachable. "Turn to account the child's first years," he says, "especially as the elements of learning demand only memory, and the memory of children is very tenacious." He would have study made easy and inviting, and everything avoided that would ruffle the spirits of the child.

The Institutes, especially the second volume, is well worth careful reading.

Seneca was an educator and author of textbooks. His letters to Lucilius abound in pedagogical precepts. "We should learn not for the sake of the school, but for the purposes of life. The end is sooner attained by example than by precept. The best way of being taught is to teach," are some of his maxims. He also recommends the profound study of a single book.

Plutarch, though not a Roman by birth, belongs to the Roman world, for in Rome he opened his school and wrote his books. He lectured on philosophy, literature and history, but his greatest work was "Lives of Illustrious Men." He wrote also on the "Training of Children," and "Education of Women." In this latter he strongly advises that mothers shall take part in the education of their children.

EDUCATION AMONG THE EARLY CHRISTIANS.

Our Savior brought new truths, a new conception of man's final destiny into the world,

and thus changed the whole theory of education. Man is no longer for the state, neither is he for society except in part. His soul is free and owes allegiance only to God. A strange result of the introduction of these new ideas was the poverty of educational thought. But Christian instruction was addressed only to barbarous people who could not rise suddenly to a high intellectual and moral culture. The invasion of barbarians in the midst of ancient society was like an armful of wood thrown on a blazing fire; at first only a mass of smoke could issue forth.

Moreover, the first centuries of the Christian era were periods of struggle. The people were driven and persecuted so that they had no time to work out their ideal. They lived a life of contemplation, thus naturally conceiving an ascetic and monastic existence, as the proper life.

Then, too, from the very nature of the case, the church resumed control of educational matters. Individual initiative was stifled; nothing could be done except by the church.

THE CHURCH FATHERS.

Most of the celebrated orators, who, by their learning, made the beginning of Christianity illustrious, were mystics and sectaries, in whose eyes philosophy and letters were heresies. There were some, however, who united religious faith and literary culture.

St. Jerome, perhaps the most learned of all early doctors, wrote valuable letters on education; especially is that one admired which was written to Laeta on the education of her daughter Paula. But Jerome's asceticism is plainly seen on every page. "The body is an enemy that must be subdued by mortifications of the flesh. Do not let Paula eat in public, that is, do not let her take part in family entertainments, for fear that she may desire the meats that may be served there. Let her food be vegetables, and only rarely fish; and let her eat so as always to be hungry."

"For myself I entirely forbid a young girl to bathe." This is because of his extreme contempt for the body.

The Bible is the only book recommended. Music of all kinds is strictly forbidden. Paula is not to feel more affection for one companion than for another. She is to be educated in a cloister where she will live as an angel, having a body but not knowing it.

Among his pious restrictions, however, St. Jerome has some very good suggestions. He would teach Paula her letters by having them

the condition of woman was greatly elevated. The effect produced by thus making mothers instructors was beneficial to a marked degree. A type of manhood and womanhood was produced in wood or ivory. She was to be induced to construct words by offering her prizes. She was not to be chided, but encouraged when she met with difficulties in her studies, but special care was to be taken that she did not have a dislike for study.

CAUSE OF THE IGNORANCE IN THE MIDDLE AGES

The Catholic church has been held responsible for the ignorance of the dark ages in some degree, perhaps rightly. St. Augustine has said that it is the ignorant who gain possession of heaven, and St. Gregory, a pope of the sixth century, declared that he would blush to have the holy word conform to the rules of grammar. But it was on account of the great influx of tartarians that ignorance prevailed. Instead of being on the whole hostile to learning, the clergy in their cloisters preserved some vestige of the ancient culture and made possible the renaissances which brought light and truth again in the world.

THE THREE RENAISSANCES.

1. Time of Charlemagne, did not last.
2. Twelfth Century, the issue of which was scholasticism.
3. The Great Renaissance of the sixteenth century, which still lasts.

Charlemagne and Alcuin. Charlemagne, or Charles the Great, formed the idea of diffusing instruction about him. He sought it himself and urged it both upon monk and lay member. One day the emperor entered a school, and noticing the young nobles indolent and ignorant, he exclaimed in anger, "Do you count upon your birth, and do you feel a pride in it? Take notice that you shall have neither government nor bishopric if you are not better instructed than others."

To assist in this great work of education, Alcuin, an educated English monk, was called by the emperor. Alcuin founded the Palatine schools, a sort of an academy which followed the court on its travels. The sons and daughters of Charlemagne and even the king himself were among the pupils. This teacher's method was something like that of Socrates, but here the pupil questioned and the teacher answered, as: Pupil—What is speech? Teacher—It is the interpreter of the soul. Pupil—What is life? Teacher—It is an enjoyment for some, but for the wretched it is a sorrow, a waiting for death.

[TO BE CONCLUDED.]

METHODS.

BY G. H. BRIMHALL.

DEFINITION. School plans are outlines of what is to be done. School methods are ways of following or carrying out the plans. In short the plan is *what to do*, and method is the *how to do it*. Method includes modes and processes. The study of methods has been termed *methodology*, *didactics* and *methodics*.

NECESSITY OF METHODS.

"Let Nature Guide." The motto is a good one, and especially for the teacher.

No one can follow Nature, methodless. She acts with wondrous precision, step by step, according to law, from the germinating of a tiny seed, to the heaving of the crested billows on the bosom of the mighty deep.

Other things being equal, he who proceeds methodically in any work, has a three-fold advantage over him who works without method. He can act on principle instead of expedient. With him it is not, "The best I can do under the circumstances," but it is the very best thing, because it is right and in proper relation. Starting with a fixed purpose, his way is chosen, and time is not lost by indecision. Having become acquainted *with*, and decided *upon* the proper order of the means of development and culture, he is not apt to neglect some of these means and intemperately use others.

Methods are the leaders of leaders, but they too must be made to follow a greater guide, Nature. Without plans, the teacher is at sea without a chart of navigation; without method, his school is a rudderless ship.

To illustrate the value of method, Bacon, the great logician said: "A lame man on a straight road reaches his destination sooner than a courier who misses his way." All does not depend on method; it can never be a substitute for love, labor and enthusiasm. Method *alone* is but the dead engine; enthusiasm and love are the fire and water; apart, the engine rusts, the fire burns out, and the water evaporates, but *bring them into proper relationship* and they speed away with cars of comfort, or massive freight, or drive the wheels of industry at a rate surpassed only by the lightning's flash.

Excess of method chained the mind during the period of scholasticism, while a lack of it has prevented the progress of the car of the "New Education," put on the track by Pestalozzi.

DIVISION OF METHODS.

There are two grand divisions, General and Special. The general methods are considered under the heads, Inductive and Deductive.

The Inductive Method. When practical illustrations precede theoretical explanations, when pupils are led through processes to discover and formulate rules, when the steps of information from effect to cause or from special to general, the method is inductive. The inductive is decidedly the one for elementary teaching. Why?

The Deductive Method. This method or order of procedure consists in giving rules and having the pupil prove their correctness by application. (Give illustration.) The deductive method should have but little place in our common schools. Why? The deductive is sometimes called the expository method, and the inductive is termed the experimental method. The special methods will be considered under two heads: First, as regards the teacher's work, under which heading we place the Lecture, the Socratic, the Alcornian, the Illustrative, and the Elliptical methods; Second, as regards pupil's work, and under this heading we consider the following:

The concert, in which all recite at once; the Individual, or single pupil recitation; the Hurd method by which a pupil signifies his preparation with raised hand; the Ticket or draw, consisting of having the names or numbers in a box from which they are drawn to indicate who shall be tested individually; the Consecutive, or "Old Next" method, by which each pupil has his regular turn, and waits for it; the Promiscuous, or drop question method; the Number method, in which numbers instead of names are called; the Note Taking method, which has several objections; (What are they?) the Reciprocal method, providing for mutual work in which the best pupils act as tutors in turns; it is commended by our best educators but must be used judiciously; the Discussion or Debate method, adapted to nearly all grades under the direction of a skillful teacher; the Conversational method, in which there is a combination of the Socratic and other methods, and which is highly commended, especially in small classes; the Committee method, which provides for the submitting of special topics to committees for investigation; map drawing, the working of difficult problems, the providing of material for illustrations, review diagrams, and answering of special questions can be accomplished by this method with pleasure and profit to pupils; the Machine method, in which the teacher reads questions

from the book and the pupil answers parrot like; more than simply objectionable is this method, it is criminal. No teacher has a right to follow a method that does not economize the pupil's time and direct his efforts along the line of pleasure, but not essentially of ease.

THE LECTURE METHOD.

Three processes may be employed in this method. The teacher may place a diagram on the board and talk from the outline, requiring the pupils to follow him in mind, then erase outline and require summary for preparation; he may talk clearly and topically on the subject, and the pupils diagram the subject from his talk and be prepared to lecture from their diagram at next lesson; he may have written or printed diagrams or notes arranged topically for each member of the class, and, supplementing these notes by remarks, require preparations from the notes; in the latter case no special text-book is needed by the pupil, but access to a good library is indispensable.

This method, adapted to high schools only, is the most cosmopolitan in use and calculated to give the student the widest possible range of thought. Why?

THE SOCRATIC METHOD.

This method differs somewhat from the ordinary catechisational method, as it not only tests the learner, but it teaches him by leading him to discover error and its correction also. The following free translation of one of Socrates's lessons will illustrate, *Meno*: "Socrates we come to you feeling strong and wise, we leave you feeling weak and ignorant. Why is this?" *Socrates*. "I will show you." Calling a young Greek and making a line in the sand, he proceeded: "Boy, how long is *this* line?" *Boy*. "It is a foot, sir." *Socrates*. "How long is *this* line." *Boy*. "It is two feet sir." *Socrates*. "How much larger would be the square constructed on the second line than on the first?" *Boy*. "It would be twice as large, sir." Under the direction of the boy Socrates constructs the two squares. *Socrates*. "How much larger than the first, did you say the second square would be?" *Boy*. "I said it would be twice as large." *Socrates*. "But how much larger is it?" *Boy*. "It is four times as large." *Socrates*. "Thank you, boy, you may go. *Meno*, that boy came to me full of confidence, thinking himself wise. I told him nothing, but by a few simple questions lead him to see his error and discover the truth."

Sin has many tools, but a lie is a handle that fits them all.

SOME POINTS ON STUDY.

[FROM TODD'S "STUDENTS' MANUAL,"]

* * * * *

Passing over a field of study has been graphically compared to conquering a country. If you thoroughly conquer everything you meet, you will pass on from victory to victory; but if you have here and there a fort or a garrison not subdued, you will soon have an army hanging on your rear, and your ground will soon need re-conquering. Never pass over a single thing, however minute or apparently of little consequence, without understanding all that can be known about it.

* * * * *

One lesson or book perfectly and thoroughly understood, would do you more good than ten lessons, or ten books, not half studied. * * *

"When you have a mind to improve a single thought, or to be clear in any particular point, do not leave it till you are master of it. View it in every light. Try how many ways you can express it, and which is shortest and best. Would you enlarge upon it, hunt it down from author to author; some of which will suggest hints concerning it, which, perhaps, never occurred to you before; and give every circumstance weight. Thus by being master of every subject as you proceed, though you make but small progress (in the number of books which you study), you will make a speedy one in useful knowledge. To leave matters undetermined, and the mind unsatisfied in what we study, is but to multiply half-notion, introduce confusion, and is the way to make a pedant, but not a scholar.

* * * * *

Some friend may offer to aid you by translations, or by books interlined with a pen, or by furnishing you with mathematical problems all wrought out. Such kindness ought to be shown only to an enemy, who he would have pursued by his vengeance through life.

If you can not stand on your own feet, do not borrow crutches, which will be taken from you soon, and which will effectually prevent you from ever having strength to walk alone.

* * * * *

Expect to become familiar with hard study. Study, which is hard for one man, is easy for another. Not only so, but the study which is easy for you today, may be intolerably irksome at another time. This is owing to the difficulty of confirming the attention closely. Health being the same, study would at all times be equally agreeable, had we the same command over the attention. You must make your calculations to study many hours, and at

many seasons when it is disagreeable—when the mind feels feeble, and the body is languid, or is even in pain. "Other things may be seized on by might, or purchased with money; but knowledge is to be gained only by study."

REVIEW PROPOSITIONS IN PSYCHOLOGY.

BY G. H. BRIMHALL.

1. What is the educational relation between psychology and physiology?
2. What special advantage does a knowledge of mind-study give a teacher?
3. Name and illustrate two methods of studying the mind.
4. Explain and illustrate the relationship of perception, perceiving and percept.
5. Give examples of physical facts, and of mental facts.
6. Compare imagination and phantasy.
7. In what respect is the imagination dependent upon the memory?
8. Name in their order the special offices of memory.
9. Illustrate verbal memory and rational memory.
10. Name and illustrate five laws of association as applied to memory.

SCIENTIFIC.**THE STUDY OF NATURAL SCIENCE.***Introduction.*

[BY PROF. W. M. WOLFE.]

It is within less than a score of years that American educators have realized the potency of Pestalozzi's great principle: "Self-development begins with sensations through the senses," and of Froebel's correlative rule: "Physical impressions are at the beginning of life the only possible medium for awakening the child's soul. These impressions should therefore be regulated as systematically as is the care of the body and not be left to chance."

The pertinent force of such doctrines has brought about a revolution in the scholastic world, and when mental development is studied from a technically psychological standpoint, we wonder not so much at the slowness of scientific progress as at any scientific progress whatsoever. Fortunately the old systems of empiric pedagogy—the days when the abstract preceded the concrete and when rules preceded their practice—are gone forever. The child is no longer a sponge calculated to absorb (*volens*

volens) a large percentage of mathematics, dead languages and technical logic, and then when ready to assume the *toga virilis*, turned out with a literary degree to evaporate a knowledge that is useless to himself and to all the rest of the world. The demand today is for a practical education. It is the duty of the teacher to lay broad and deep the foundation upon which the superstructure is to be erected. But all building, whether of foundation or of polished cornice, must be by natural methods, and upon reasonable principles, and since the entrance to the intellect is through sense perception, it is upon sense perception that the teacher must first work. This introduces the subject of Natural Science.

Let us disabuse our minds of the impression, if it exist, that natural science is a complex mass of *isms* and *ologies*. It is simply a knowledge of and a friendship for those things which we perceive through the senses. I care not if a man can demonstrate all the laws of Kepler, can lecture for hours on the embryology of the *Rotiferæ* or make exquisite micrographs of the *Fresh Water Algæ*, if he cannot

"Find tongues in trees, books in running brooks,
Sermons in stones and good in everything,"

he is not a scientist, much less a teacher.

If we know those things that in our daily walks about us lie, the knowledge of the laws which govern them will be easy of acquisition; in fact we will grasp them almost intuitively. So if the conscientious teacher will aid the sense perception of the pupil by a simple introduction (as of person to person) of the object perceived concerning which curiosity is aroused, to the child and will then give no more assistance than is absolutely essential to a correct understanding of the matter in hand and is beyond the child's own range of acquisition, we will see our little kindergartners formulating their own botanies and zoologies in a spirit that will make many an old professor blush.

There is a regular gradation in scientific studies that keeps pace with the awakening senses of childhood and geography, not the geography of the text book, but the geography of the city, the farm and field, is the first branch which the child naturally pursues. Imagine yourself then a teacher of the first grade; your children stand around your desk ready for their initial geography lesson. You tell them to close their eyes and give you a picture of slate crayon. They care nothing for the latitude of Provo, its mean temperature or its flora and fauna. They care nothing for

the strata that through countless ages have been building those mighty mountain chains; but they do see the hillsides covered with grass and herbage, fretted with wild flowers, fragrant with the perfume of the wild rose and honey-suckle, vocal with the carolings of the birds, and above all this they see the pine-clad hills and the blue sky and the white clouds, and the spirit of poetry and the genius of science come to them hand in hand, and the golden opportunity of the teacher commences.

Physiography which must be considered as separate from physical geography, is the first department of natural science in which the teacher labors. It is the foundation for the technical sciences, botany, zoology and geology, which follow in the order mentioned. The child will wonder why the aspen is found in the upland parks, the pine upon sky-piercing summits, the willow in the valley, and he will find that the sun-flower that grows around the lake is not found in the region where the aster reigns; that the birds that build in the orchards around his home are not those that build in the crevices of rocks, and he will want to know the reason for these things; and so the teacher gives him his first lesson in meteorology.

Having dwelt a little while on physiography the teacher may turn his attention to the study of botany, which should always be considered in the spring and in the fields, for no branch of natural science is so devoid of interest in the schoolroom, and none so full of it upon the mountain side. After studying the local flora, its use may be considered, and this leads naturally to the study of zoology, and of all the departments of zoology that of ornithology is the most interesting and most easily presented to the child.

Withal the study of botany and zoology awaken an appreciation of the beautiful, create a healthful desire for information, have a tendency to promote sufficient physical culture to keep the body and mind of the little student in perfect health, and more than all else, inspire a love for and trust in the Creator that is obtained in no other way.

Last of all, the study of geology may be considered. This is the study of autumn, just as zoology and botany belong to the vernal season. The child may thus in the first two years of its school life have presented to it a picture of the natural world that can never be effaced. A solid foundation for study has been laid, the formative value of which is inestimable, and in 75 per cent. of the pupils the desires awakened will lead the pupil in after life to make a specialty of some branch of botany, zoology, geology or mineralogy that

will occupy his leisure moments as an amateur if not as a professional scientist.

Some methods of presenting natural science in elementary schools will be given in future numbers of the NORMAL.

LITERARY.

"OUR TEMPLE OF LEARNING, WE LOVE THEE."

PHILIOS.

These words are to be seen in floral form enfolding the portrait of the venerable founder of the Brigham Young Academy, Provo, Utah. They are seen daily by the thronging hundreds of the very flower of Zion's young men and maidens.

This year of our Lord has witnessed a gathering of earnest students of far-reaching significance. Our indefatigable principal has gathered to himself an increased staff of earnest and experienced co-workers in the higher branches of collegiate studies. So that the new academy, with its crowded halls of brightest intelligences, has now reached a condition of such a possible power and usefulness that can not fail to win the perfect confidence and generous support of the entire community.

"Our Temple of Learning." We are devoutly thankful to name it so, since the spirit of truth is the indwelling spirit of the Temple and it is this same spirit we invoke for the consecration of all our learning, for there is no beneficent power in knowledge apart from the consecrating spirit of the living God.

Indeed, "There is a spirit in man, but it is the Spirit of the Almighty that giveth him understanding." And this is the crowning glory, the one grand and distinctive principle of our temple of learning. We daily invoke the divine favor and benediction, and own our absolute inability to learn anything wisely and efficiently without the aid of the spirit of all knowledge and power and goodness.

We welcome every generalized truth of modern science. We rejoice in the established principles of philosophy, and greet the increasing advancement of ameliorating knowledge in every department of life. But we say and believe supremely, that there is no knowledge, science or philosophy that ever did or ever will regenerate the human soul apart from the life-giving power of the divine Spirit. The world's one and greatest teacher prayed that we might be sanctified by the truth—truth indeed, truth in relation to the cardinal principles of the Godhead, of the universe, of man and of man's

relation to the eternal realities of the future.

We seek daily and labor for increased intelligence, but we wish above all for that intelligence which is the glory of God—not the cold intellectual brilliancy of a Voltaire, but the warm and energizing glow of living truth as stated by the prophets of old, and now again by the living prophets of our own most wondrous and eventful age.

"Our Temple of Learning—We love thee." This second part of our floral inscription is a truthful statement of the spirit which pervades the whole institution. Unity, kindness and helpfulness are every day manifest by teachers and students alike.

Good work is being done in every department, from English reading to Greek translation; from the practice in figures to the problems in Euclid; from the simplest facts of science to the unifying principles of philosophy. And all these branches of human learning find their center in the all-embracing science of divine wisdom—the truth of God in manifold relation to man.

And now with one heart and with one mind we send forth a greeting and a welcome to all the youth of Zion. Come with us and you shall find here a home and collegiate life combined, with a resulting culture of highest worth.

A prominent and valuable feature of the theological instruction this year, is the course of lectures delivered by Brother George Reynolds on Book of Mormon history. One lecture is delivered every Tuesday in the library from twelve to one o'clock, and is listened to by all the school. His ability as a Book of Mormon student is well known, and we feel thankful for this rare privilege of listening to him. Brother David McKenzie, and Presidents George Q. Cannon and Joseph F. Smith will also deliver special lectures in theology; but theirs will be upon doctrinal points pertaining to the principles of the gospel, while the lectures of Brother Reynolds are confined to the historical portions, especially of the Book of Mormon.

The increase of the faculty this year together with the increase of room has very perceptibly extended the sphere of usefulness of the institution. The hall and several rooms in the basement have been finished, thus obviating the deficiency of class rooms which barred some classes from the curriculum last year. The fourth story has also been plastered, so that altogether the heating facilities will be greatly augmented.

LOCALS.

A number of teachers attended Miss Southworth's reception at Castella last Saturday evening. They report a most delightful time.

The lonesome expression on Brother McKendrick's face, may be accounted for by the fact that his "better-half" has temporarily deserted him for the russet fields of Tooele.

The friends of Miss Mary Lyman will be pleased to learn that she has so far recovered from her late injury as to be able to visit friends in Salt Lake, and she expects soon to spend a few weeks in Provo.

The Polysophical society, managed by Geo. H. Brimhall and L. E. Eggertsen, is doing its usual work. Two very entertaining sessions have been held, and those of the future will no doubt be equally as good.

The number of young men and ladies from this territory going east this summer, is greater than ever before. Some of the married men have taken their families (small as yet) intending to be away some three or four years. Others will be absent but a few months, others a year.

It has been moved and seconded that those students who cannot stand erect during the singing at devotional exercises be allowed to sit on their desks. All in favor of this motion say "aye." Contrary "no." The "ayes" have it, and those students may use their desks for support during congregational singing.

One by one the sands are flowing,
One by one the leaves will fall,
One by one our friends are going—
Last on Hymen's sea, that's all.

That is where our old friend, John Mills has gone, but he thinks he will reach harbor in old Mexico and there cast anchor for many days. May his crew increase.

We call attention to the fact that the organ is not played at the opening of school for the sole purpose of pleasing the ear. But one would think so to watch the movements of some as they come in for devotional exercises. We give them one more chance, and if they cannot find out that other purpose, we suggest that Captain Maeser take them in charge.

On Saturday last, the geology and physical geography classes with their instructor, Prof. Wolfe, enjoyed their first Field Day for this semester. Rock canyon was visited and its geological formation studied. Numerous specimens of the minerals, flora, and entomologi-

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cal fauna of the canyon were gathered, and the party returned to Provo well satisfied with the results of the days outing.

The attendance at the opening of school this year is considerably greater than at the beginning of any other previous year. The attendance at present is about four hundred, and will possibly be nearly doubled by January. This is due probably to the increased facilities, and no doubt also to the influence of the summer school. We might also mention that there are some earnest workers beneath it all.

At the last Young Ladies' meeting, Professor Brimhall delivered a lecture which was greatly appreciated by his hearers. It is to be regretted that an equal number of gentlemen could not have been present, and received an equal benefit. He portrayed so beautifully the true relationship which should exist between man and his sister, woman, that it will not soon be forgotten.

The Pedagogy is a very important feature of the Normal Department. An instructive lecture on an educational subject is delivered at each session, on Thursday evenings, which together with the entertaining features, makes the hour thus spent, a very pleasant and profitable one. The lecture last week by Professor Cluff on the science of Pedagogy was very interesting. He will probably continue the subject in the future.

Under the proficient management of Prof. Giles, and Miss Maeser, the musical department bids fair to become an important feature this year as in years previous. Congregational singing has done away with the choir, but the Ladies' and Gentlemen's Glee Clubs, though in no way superceding the choir, will probably do much for the musical department. A military band has been organized among the students, which holds two practices a week.

Last year the roadcrossings near the Academy were all but impassable during the wet seasons. This was especially true of the southwest corner, as the road had been ploughed up and left without gravel to cover it. The wet season is near again, and teachers and students will greatly appreciate anything that may be done by our city to remedy the evil. In this connection we are also reminded of the many bad bridges (rather no bridges) in the vicinity. This is a comparatively small matter, but it is the little things of life that quietly take possession of all our comforts and pleasures.

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